HISTORY OF CERAMIC DEPARTMENT

By ARTHUR S. WATTS

ON April 20, 1894, the General Assembly of Ohio passed an act requiring the Board of Trustees of The Ohio State University to establish a department of ceramics; and in September, 1895, the first department for technical ceramic education in the United States, and we believe in the world, was opened in Orton Hall, Ohio State University, with Professor Edward Orton, Jr., in charge and fifteen students enrolled. A two-year course of instruction was provided. In 1896 a four-year course was announced and Mr. William Lloyd Evans was employed as assistant in ceramics. Dr. Evans, who is now head of the Chemistry Department of Ohio State University, resigned after two years and was succeeded by Mr. A. V. Bleininger, now one of the foremost ceramic technologists in America. In 1901 Mr. Bleininger was promoted to instructor, and Mr. Ross C. Purdy, now General Secretary of the American Ceramic Society, was appointed assistant in ceramics. Mr. Bleininger became assistant professor in 1905 and associate professor in 1906. He resigned in 1908, and Mr. Purdy was appointed associate professor.

On May 16, 1908, the name was changed from Department of Ceramics to Department of Ceramic Engineering.

In 1909, Homer F. Staley was appointed assistant professor of ceramic engineering.

In 1910, Ross C. Purdy and Homer F. Staley were appointed professors of ceramic engineering, and Carl B. Harrop was appointed assistant professor in charge of ceramic engineering design and construction.

In 1911, Mr. Purdy resigned and Mr. F. K. Pence was appointed professor.

In 1913, Mr. Pence resigned and Mr. Arthur S. Watts was appointed professor.

In 1915, Professor Orton was absent on leave and Professor Watts was acting head of the department. Hewitt Wilson was appointed assistant professor.

In 1917, Professor Orton resigned and Professor Watts succeeded him as head of the department.

In 1920, Professor Wilson resigned, and was succeeded by J. T. Robson with the title of instructor.

In 1925, Professor Harrop resigned and J. L. Carruthers was appointed assistant professor.

In 1926, G. A. Boyle was appointed research professor.

In 1927, R. M. King was appointed assistant professor.

In 1928, Dr. S. R. Scholes was appointed lecturer in glass technology.

In 1930, J. L. Carruthers was appointed associate professor.

In 1930, Dr. Scholes resigned and was succeeded by D. J. McSwiney.

The present teaching staff consists of Arthur S. Watts, professor; John L. Carruthers, associate professor; George A. Bole, research professor; R. M. King, assistant professor; D. J. McSwiney, lecturer; J. C. Lysatt, mechanician.

The first graduate received the degree "Engineer of Mines in Ceramics" in 1900. From 1908 to 1914 inclusive, the degree "Ceramic Engineer" was conferred, and since then the degree granted has been "Bachelor of Ceramic Engineering."

The enrollment has grown from the original fifteen Short-Course students to 123 in 1931. This includes nine post-graduate students. The department has graduated 323 students with the bachelor or equivalent degree, 18 with the graduate degree of Master of Science, and six with the degree Doctor of Philosophy.

DISTRIBUTION OF GRADUATES IN THE CERAMIC INDUSTRY

Art ½ per cent, Enameled Metals 7 per cent, Glass 5 per cent, Heavy Clay Products 15 per cent, Refractories 13 per cent, Terra Cotta 7 per cent, Whitewares 20 per cent, Research and Teaching 7 per cent, Miscellaneous Ceramics 7 per cent, Outside Ceramics 6 per cent, no record 12½ per cent.

Data obtained by questionnaire at a meeting of 108 graduates discloses that

Thirty-one per cent are interested financially in the concerns employing them.

Forty-three per cent are superintendents or higher officers of concerns employing them.

In 1906 the Ceramic Engineering Department moved into Lord Hall, where it has since maintained its headquarters.

In 1917 the U. S. Bureau of Mines established a research station in Lord Hall, where fundamental research in ceramics is conducted. In 1926 the direction of this Station was transferred to the U. S. Bureau of Standards.

In 1927 the State of Ohio erected a ceramic research and plant proving station at Roseville, Ohio, in connection with the state-owned brick plant, where problems related to the heavy clay and refractory industries are investigated and carried through to commercial completion. These

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two research stations are open to students of ceramic engineering and have great educational value.

Three cooperative fellowships are maintained by the Bureau of Standards–Engineering Experiment Station, and various other fellowships are maintained through cooperation of the industries for research in the field of ceramic engineering.

Ceramic education has developed in the past thirty-five years from a field devoid of literature and with no definite vision of industrial utilization of graduates to a well-defined branch of engineering, possessing a literature which compares favorably in quality and amount to that of the other fields of engineering, and producing graduates through both general and special training to meet most industrial demands. The progress in ceramic industrial development is generally credited in a large degree to the graduates in ceramic engineering.

The educational scheme originally was a single course of study followed by all students. Since 1925 the courses of study have been increased so that the student elects any three of the following: heavy clay wares, refractories, stoneware and terra cotta, whiteware, metal enamels, and ceramic colors. These are in addition to a general course in glass technology. The graduate thus has specific training in at least four fields of ceramics. This department has always emphasized ceramic plant and equipment construction to a greater degree than any other ceramic school. The application of physical chemistry and thermo-

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chemical mineralogy to ceramics is also emphasized in the curriculum and is proving a valuable aid in the solution of problems in this field.

The opportunity for graduate work in ceramics is exceptional, and the number of graduate students in ceramic engineering is steadily increasing.